

PATENT APPLICATION

ATTORNEY DOCKET NO. \_

10017760-1

#### IN THE

#### UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Roland M. HOCHMUTH et al. Confirmation No.: 5760

Application No.: 10/004,191

Examiner: Nguyen, Hau H.

Filing Date: October 31, 2001

**Group Art Unit:** 2628

Title: SYSTEM AND METHOD FOR DISPLAYING AN IMAGE ON A NETWORK ATTACHABLE DISPLAY DEVICE

Mail Stop Appeal Brief-Patents

Commissioner For Patents PO Box 1450				
Alexandria, VA 22313-1450	TRANSMITTAL OF A	PPFAL RRIFF		
Transmitted herewith is the Appea		*	Appeal filed on January 2, 2008	
	•	spect to the Notice of	Appear med on	
The fee for filing this Appeal B	rief is \$510.00 (37 CFR 41.20).			
☐ No Additional Fee Required.				
	(complete (a) or (b) a	is applicable)		
The proceedings herein are for a p	patent application and the provis	sions of 37 CFR 1.136	s(a) apply.	
(a) Applicant petitions for an emonths checked below:	extension of time under 37 CFF	R 1.136 (fees: 37 CFF	R 1.17(a)-(d)) for the total number of	
1st Month \$120	2nd Month \$460	3rd Month \$1050	4th Month \$1640	
(b) Applicant believes that no e	dy been filed in this application. xtension of time is required. Ho has inadvertently overlooked th	wever, this conditiona	I petition is being made to provide for and fee for extension of time.	
	d or credit any over payment es to Deposit Account 08-2025	to Deposit Account under 37 CFR 1.16	uring the pendency of this application 08-2025 pursuant to 37 CFR 1.25 through 1.21 inclusive, and any other	
X A duplicate copy of this transm	ittal letter is enclosed.			
I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to:  Commissioner for Patents, Alexandria, VA 22313-1450  Date of Deposit: January 25, 2008		Respectfully submitted,		
		Roland M. HOCHMUTH et al.  By James L Baudino		
		June - Buisans		
OR	OR		James L. Baudino	
I hereby certify that this paper is being transmitted to the Patent and Trademark Office facsimile number (571)273-8300.		Attorney/Agent f	or Applicant(s) 43,486	
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Rev 10/07(AplBrief)

In re Application of:

Roland M. HOCHMUTH et al.

Confirmation No.: 5760

Serial No.:

10/004,191

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Nguyen, Hau H.

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SYSTEM AND METHOD FOR DISPLAYING AN IMAGE ON A

NETWORK ATTACHABLE DISPLAY DEVICE

Docket No.:

10017760-1

MAIL STOP: APPEAL BRIEF PATENTS

**Commissioner for Patents** 

P.O. Box 1450

Alexandria, Virginia 22313-1450

Dear Sir:

#### **APPEAL BRIEF**

Appellant has appealed to the Board of Patent Appeals and Interferences from the decision of the Examiner mailed November 14, 2007, finally rejecting Claims 37-61. Appellant filed a Notice of Appeal on January 2, 2008. Appellant respectfully submits herewith this Appeal Brief with authorization to charge the statutory fee of \$510.00.

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#### **REAL PARTY IN INTEREST**

The present application was assigned to Hewlett-Packard Company as indicated by an assignment from the inventor recorded on February 12, 2002 in the Assignment Records of the United States Patent and Trademark Office at Reel 012601, Frame 0006. The present application was subsequently assigned to Hewlett-Packard Development Company, L.P. as indicated by an assignment from Hewlett-Packard Company recorded on September 30, 2003 in the Assignment Records of the United States Patent and Trademark Office at Reel 014061, Frame 0492. The real party in interest is Hewlett-Packard Development Company, LP, a limited partnership established under the laws of the State of Texas and having a principal place of business at 20555 S.H. 249 Houston, TX 77070, U.S.A. (hereinafter "HPDC"). HPDC is a Texas limited partnership and is a wholly-owned affiliate of Hewlett-Packard Company, a Delaware Corporation, headquartered in Palo Alto, CA. The general or managing partner of HPDC is HPQ Holdings, LLC.

#### RELATED APPEALS AND INTERFERENCES

There are no known appeals or interferences that will directly affect or be directly affected by or have a bearing on the Board's decision in this pending appeal.

#### **STATUS OF CLAIMS**

Claims 37-61 stand rejected pursuant to a final Office Action mailed November 14, 2007. Claims 1-36 have been cancelled without prejudice or disclaimer. Claims 37-61 are presented for appeal.

#### STATUS OF AMENDMENTS

No amendment has been filed subsequent to the mailing of the Final Office Action.

#### SUMMARY OF CLAIMED SUBJECT MATTER

Embodiments of the present invention as defined by independent Claim 37 are directed toward a system (10) for displaying an image comprising a display device (14) communicatively couplable to a network (16) and adapted to display the image, the display device (14) comprising a display network interface (172) operable to receive bitmap image data of the image from the network (16), a display frame buffer (170) operable to store the received bitmap image data, and a display refresh unit (178) operable to read the bitmap image data from the

display frame buffer (170) and display and refresh the image at a refresh rate. (at least at page 4, line 29 to page 5, line 2; page 15 line 29 to page 19, line 32; and figures 7A, 7B, 8, and 9).

Embodiments of the present invention as defined by independent Claim 45 are directed toward a method for displaying an image comprising receiving, via a network interface (172) of a display device (14) communicatively coupled to a network (16), bitmap image data of the image, the display device (14) adapted to display the image, storing the received bitmap image data in a display frame buffer (170) of the display device (14), and reading the stored bitmap image data from the display frame buffer (170) by a display refresh unit (178) of the display device (14) and refreshing the display of the image at a refresh rate. (at least at page 4, line 29 to page 5, line 2; page 15 line 29 to page 19, line 32; and figures 7A, 7B, 8, and 9).

Embodiments of the present invention as defined by independent Claim 52 are directed toward a system (10) for displaying an image comprising means (172) for receiving, via a display device (14) communicatively coupled to a network (16), bitmap image data of the image, the display device (14) adapted to display the image, means (174) for storing the received bitmap image data in a display frame buffer (170) of the display device (14), and means for reading the stored bitmap image data from the display frame buffer (170) by a display refresh unit (178) of the display device (14) and refresh the display of the image at a refresh rate. (at least at page 4, line 29 to page 5, line 2; page 15 line 29 to page 19, line 32; and figures 7A, 7B, 8, and 9).

Embodiments of the present invention as defined by independent Claim 55 are directed toward a system (10) for displaying an image comprising a display device (180) communicatively couplable to a network (16) and configured to display the image, the display device (180) comprising a frame buffer (170) and a single-chip display controller (186), the frame buffer (170) operable to store graphics image data, and wherein the single-chip display controller (186) comprises a network interface (172) operable to receive the graphics image data of the image from the network and provide the graphics image data to the frame buffer (170); and a display refresh unit (178) operable to read the graphics image data from the frame buffer (170) and display and refresh the image at a refresh rate (at least at page 4, line 29 to page 5, line 2; page 15 line 29 to page 19, line 32; and figures 7B, 8, and 9).

Embodiments of the present invention as defined by independent Claim 58 are directed toward a system for displaying an image comprising a display device (180) communicatively

couplable to a network (16) and adapted to display the image, the display device (180) comprising a display network interface (172) operable to receive graphics image data of the image over the network from a frame buffer (50) of a remote source device (12); a display frame buffer (170) operable to store the received graphics image data; and a display refresh unit (178) operable to read the graphics image data from the display frame buffer (170) and display and refresh the image at a refresh rate (at least at page 4, line 29 to page 5, line 2; page 15 line 29 to page 19, line 32; and figures 7A, 7B, 8, and 9).

#### GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

- 1. Claims 37-39, 43, 45, 50-52, 55, 58, and 61 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,466,203 issued to Van Ee (hereinafter "Ee") in view of U.S. Patent No. 6,044,445 issued to Tsuda et al. (hereinafter "*Tsuda*").
- 2. Claims 40-42, 46-49, 53-54, 56-57, and 59-60 were rejected under 35 U.S.C. §103(a) as being unpatentable in view of *Ee* in view of *Tsuda* and further in view of U.S. Patent No. 6,704,024 issued to Robotham et al. (*"Robotham"*).

#### **ARGUMENT**

#### A. <u>35 U.S.C. § 103</u>

To establish a prima facie case of obviousness under 35 U.S.C. § 103, three basic criteria must be met: First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings; second, there must be a reasonable expectation of success; and finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. In re Vaeck, 947 F.2d 488, (Fed. Cir. 1991); M.P.E.P. § 2143. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. Id. Further, the mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. In re Mills, 916 F.2d 680 (Fed. Cir. 1990); M.P.E.P. § 2143.01. Additionally, where there is no apparent disadvantage present in a particular prior art reference, then generally there can be no motivation to combine the teaching of another reference with the particular prior art reference. Winner Int'l Royalty Corp. v. Wang, 202 F.3d 1340, 1349 (Fed. Cir. 2000). Moreover, rejections based on obviousness cannot be sustained by mere

conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. *Teleflex Inc. v. KSR Int'l Co.*, 550 U.S. at I, 82 USPQ2d at 1396 (2007).

#### B. GROUND OF REJECTION 1 (Claims 37-39, 43, 45, 50-52, 55, 58, and 61)

Claims 37-39, 43, 45, 50-52, 55, 58, and 61 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Van Ee* in view of *Tsuda*.

# B.1. <u>The Examiner Fails to Establish a *Prima Facie* Case of Obviousness</u> Because the Combination of *Van Ee* and *Tsuda* Fails to Teach or Suggest All the Features of the Independent Claims.

#### B.1.i. Claims 37-39, 43, 45, and 50-52

Of the rejected Claims, in this grouping of Claims, Claims 37, 45, and 52 are independent. Appellant respectfully submits that each of independent Claims 37, 45, and 52 are patentable over the cited references. Claim 37 is representative of Claims 45 and 52. Claim 37 is as follows:

- 37. A system for displaying an image, comprising:
- a display device communicatively couplable to a network and adapted to display the image, the display device comprising:
- a display network interface operable to receive bitmap image data of the image from the network;
- a display frame buffer operable to store the received bitmap image data; and
- a display refresh unit operable to read the bitmap image data from the display frame buffer and display and refresh the image at a refresh rate.

Appellant respectfully submits that neither *Van Ee* nor *Tsuda*, alone or in combination, discloses, teaches or suggests all the limitations of independent Claim 37. For example, neither *Van Ee* nor *Tsuda*, alone or in combination, discloses or suggests receiving <u>bitmap image data</u> of the image from the network.

Van Ee appears to disclose a hand-held apparatus 100 having a display 102 for displaying graphical information, a frame buffer 112 coupled to the display 102 for storing information content to be shown on the display 102, and a modem 114 for connecting to the Internet (Van Ee, column 3, lines 44-66, figure 1). Van Ee further recites:

Such handheld devices provided with the auto-zoom feature let the user retrieve graphical information, e.g., a web page or streamed video that is stored, e.g., as a bitmap, in the display's framebuffer or another cache.

(Van Ee, column 2, lines 31-35).

Van Ee does not appear to disclose or even suggest that the <u>data received</u> by the handheld device from the network is "<u>bitmap image data</u>" as recited by Claim 37. Van Ee appears to disclose that the handheld device lets the user retrieve graphical information, such as a web page or streamed video that is <u>stored as</u> a bitmap. Thus, Van Ee appears to disclose that the handheld device <u>receives</u> a web page or streamed video content, processes the received data to convert the data into a bitmap prior to storing the bitmap in the display's frame buffer. Accordingly, Van Ee does not appear to disclose or suggest the feature of, "receive[ing] <u>bitmap image data</u> of the image from the network," as recited in Claim 37.

Tsuda appears to be relied on to purportedly disclose reading data out of a frame buffer at an appropriate refresh rate for display on a display device (Office action, page 3 (*Tsuda*, column 1, lines 54-65)). Further, *Tsuda* discloses, "data structures for managing a network interface and a display device are different, so that it is necessary to convert the image data from a data structure required for managing the network interface to a data structure required for managing the display device, during transfer of the image data," (*Tsuda*, col. 1, line 24-29) (emphasis added). Thus, *Tsuda* also does not appear to disclose or even suggest the feature of, "receive[ing] bitmap image data of the image from the network," as recited in Claim 37. Accordingly, neither *Van Ee* nor *Tsuda*, alone or in combination, discloses or suggests all the limitations of independent Claim 37.

Independent Claims 45 and 52 recite similar limitations as recited in Claim 37. At least for the reasons discussed above in connection with independent Claim 37, Appellant respectfully submits that Claims 45 and 52 are also patentable over the cited references.

Claims 38, 39, 43, and 50-51 depend respectively from independent Claims 37 and 45. Therefore, for at least for the reasons discussed above, Claims 38, 39, 43, and 50-51 are also patentable. Accordingly, Appellant respectfully requests the allowance of Claims 37-39, 43, 45, and 50-52.

#### B.1.ii. Claims 55 and 61

Independent Claim 55 recites "a display device communicatively couplable to a network" having "a single-chip display controller" where the "single-chip display controller" comprises "a network interface operable to receive the graphics image data of the image from the network and provide the graphics image data to the frame buffer" and "a display refresh unit operable to read the graphics image data from the frame buffer and display and refresh the image at a refresh rate." In the Office Action, the Examiner appears to acknowledge that neither *Van Ee* nor *Tsuda* discloses the above-referenced limitations of Claim 55 (Office Action, page 4). However, the Examiner asserts that it would be obvious to apparently provide these limitations in the *Van Ee* device (Office Action, page 4). Appellant respectfully disagrees.

In the Office Action, as a basis for the Examiner's obvious assertion, the Examiner states that "the size of the circuit board can be reduced and the circuit paths can also be shortened, thereby reducing the cost while enhancing performance" (Office Action, page 4). Appellant respectfully submits that the Examiner's statements are nothing more than unsupported speculations and, therefore, amount to no more than hindsight reasoning, which is improper. For example, the Examiner offers no support or basis, in fact or otherwise, that the size of a circuit board would be decreased by incorporating the limitations recited by Claim 55 in a single-chip display controller. To the contrary, such a single-chip display controller may require greater space on a printed circuit board and require a larger circuit board. Moreover, the single-chip controller of Claim 55 may cost more than alternatives. Accordingly, Appellant respectfully submits that Claim 55, and Claims 56 and 57 that depend therefrom, are patentable over the cited references and request the allowance of Claims 55-57.

#### B.1.iii. Claim 58

Independent Claim 58 recites "a display device communicatively couplable to a network and adapted to display the image" where the display device comprises "a display network interface operable to receive graphics image data of the image over the network <u>from a frame buffer of a remote source device</u>" (emphasis added). Appellant respectfully submits that no prima facie rejection of Claim 58 has been established. For example, in the Office Action, the Examiner merely refers to the basis for rejecting Claim 37 as a basis for rejecting Claim 58 (Office Action, page 4). However, Claim 37 does not recite "a display network interface operable to receive graphics image data of the image over the network <u>from a frame buffer of a remote source device</u>" as recited by Claim 58 (emphasis added). Accordingly, for at least this reason, the rejection is improper.

Notwithstanding the above, Appellant respectfully submits that neither *Van Ee* nor *Tsuda* discloses, teaches or suggests the limitations recited by Claim 58. For example, *Van Ee* appears to disclose a hand-held apparatus 100 having a display 102 for displaying graphical information, a frame buffer 112 coupled to the display 102 for storing information content to be shown on the display 102, and a modem 114 for connecting to the Internet (*Van Ee*, column 3, lines 44-66, figure 1). *Van Ee* appears to disclose that graphical information (e.g., a web page or streamed video) is stored in the display's framebuffer or other cache (*Van Ee*, column 2, lines 31-35). However, *Van Ee* does not appear to disclose or even suggest that graphics data is received by the *Van Ee* device from "a <u>frame buffer of a remote source device</u>" as recited by Claim 58 (emphasis added). Further, the Examiner does not rely on *Tsuda* to remedy, nor does *Tsuda* appear to remedy, at least this deficiency of *Van Ee*. Therefore, for at least these reasons, Appellant respectfully submits that Claim 58, and Claims 59-61 that depend therefrom, are patentable over the cited references and request the allowance of Claims 58-61.

## B.2. <u>The Examiner Fails to Establish a *Prima Facie* Case of Obviousness</u> Because No Motivation Exists to Combine the Teachings of the References.

In the case at hand, the Examiner fails to state a *prima facie* case of obviousness because no motivation exists to combine the teachings of the references. In fact, the Examiner states, "the display device as taught by *Van Ee* is <u>capable of</u> refreshing the image in order to display video frame by frame," (Office Action, page 3) (emphasis added). In combining the teachings of the references, the Examiner further states, "This is <u>also</u> taught by *Tsuda*." (Office Action, page 3) (emphasis added). However, the Examiner's own statement appears to indicate that there is no apparent disadvantage/need present in *Van Ee* that would generally motivate one of ordinary skill in the art to combine the teachings of another reference with the teachings of *Van Ee* because *Van Ee* is already capable of doing something that the Examiner considers to be taught by *Tsuda*. Thus, no need or reason exists for combining the teachings of *Tsuda* with that of *Van Ee*. Accordingly, the Examiner fails to state a *prima facie* case of obviousness in regards to Claims 37-39, 43, 45, 50-52, 55, 58, and 61. Consequently, Appellant requests the allowance of Claims 37-39, 43, 45, 50-52, 55, 58, and 61.

# B.3. The Examiner Fails to Establish a *Prima Facie* Case of Obviousness Because the Examiner Failed to Provide Articulated Reasons, With Some Rational Underpinning to Support the Legal Conclusion of Obviousness.

The Examiner fails to state a *prima facie* case of obviousness because the Examiner failed to provide articulated reasons, with some rational underpinning to support the legal conclusion of obviousness, as to why one of ordinary skill in the art would be led to combine the teachings of the references. In combining the references the Examiner states, "it would have been obvious to one killed in the art to utilize the method of refreshing the image as taught by *Tsuda* et al. in combination with the method as taught by *Van Ee* in order to ensure the received image is properly displayed on the display device," (Office Action, page 3).

However, rejections based on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness as required under *KSR*. In the case at hand, there is no rational underpinning to support the legal conclusion of obviousness based on the Examiner's purported reason because *Van Ee* does not appear to disclose any problems associated with displaying received images. Thus, the Examiner's statement in regards to combining the references that "it would have been obvious [...] to ensure the received image is properly displayed" is merely an unsupported conclusory statement based on the Examiner's own opinion.

Therefore, the Examiner has not satisfied the requirement of articulating a reason with some rational underpinning to support the legal conclusion of obviousness as required under *KSR* as to why one of ordinary skill in the art would look to combine the teachings of the references. Accordingly, the Examiner's obviousness rejection cannot be sustained. Consequently, Appellant requests the allowance of Claims 37-39, 43, 45, 50-52, 55, 58, and 61.

#### B.4. Rebuttal of Examiner's Response

In responding to previous arguments presented by Appellant, the Examiner states "In fact, the cited portion in the rejection above and throughout the disclosure of the Patent *Van Ee*, the handheld device receives data in the form of bitmap image." (Office Action, page 3). Appellant respectfully disagrees.

The cited portion of *Van Ee* specifically states, "Such handheld devices provided with the auto-zoom feature let the user <u>retrieve</u> graphical information, e.g., a web page or streamed video that is <u>stored</u>, e.g., as a bitmap, in the <u>display's framebuffer</u> or another cache," (emphasis added). Thus, the cited portion states that the user retrieves graphical information, from the

frame buffer, that may be stored as a bitmap in the frame buffer. Further, other sections of *Van Ee* disclose only the storage of bitmaps. (*See*, col. 3, line 60, "Memory 106 stores bitmaps that are mapped onto display"; and col. 4, lines 32-34, "The animation is effected through proper processing of the bitmaps in memory 106 and frame buffer 112.") (emphasis added). Accordingly, the Examiner's assertion that *Van Ee* discloses that the handheld device receives data in the form of bitmap image from the network is erroneous.

In response to the Examiner's statement that Figure 3 shows the graphic data is compressed before sending, Appellant cites to portions of the disclosure that state, "The graphics image data may be obtained by network interface 28 either from compression unit 26 or from frame buffer 50." (Specification, par. 0028) (emphasis added); "Network interface 28 may read graphics image data from frame buffer 50." (Specification, par. 0039) (emphasis added); and "The graphics image data may be stored in display frame buffer 170 in either compressed or decompressed form." (Specification, par. 0039) (emphasis added). Furthermore, Figure 3 illustrates that block 102, "Compress Graphics Data", may be bypassed. Accordingly, the disclosure clearly supports the features of Claim 37 in which the display network interface is operable to receive bitmap image data.

#### C. GROUND OF REJECTION 2 (Claims 40-42, 46-49, 53-54, 56-57, and 59-60)

Claims 40-42, 46-49, 53-54, 56-57, and 59-60 were rejected under 35 U.S.C. §103(a) as being unpatentable in view of *Ee* in view of *Tsuda* and further in view of U.S. Patent No. 6,704,024 issued to Robotham et al. ("*Robotham*"). Because Claims 40-42, 46-49, and 53-54 depend from independent Claims 37, 45, 52, 55, and 58, respectively, and because *Robotham* does not appear to remedy at least the deficiencies of *Van Ee* and *Tsuda* as discussed above, Claims 40-42, 46-49, 53-54, 56-57, and 59-60 are also patentable. Accordingly, Appellant respectfully requests the allowance of Claims 40-42, 46-49, 53-54, 56-57, and 59-60.

#### CONCLUSION

Appellant has demonstrated that the present invention as Claimed is clearly distinguishable over the art cited of record. Therefore, Appellant respectfully requests the Board of Patent Appeals and Interferences to reverse the final rejection of the Examiner and instruct the Examiner to issue a notice of allowance of all Claims.

The Commissioner is authorized to charge the statutory fee of \$510.00 to Deposit Account No. 08-2025 of Hewlett-Packard Company. Although no other fee is believed due, the Commissioner is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 08-2025 of Hewlett-Packard Company.

Respectfully submitted,

James L. Baudino

Registration No. 43,486

Date: January 25, 2008

Correspondence To:

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#### **CLAIMS APPENDIX**

- 37. A system for displaying an image, comprising:
- a display device communicatively couplable to a network and adapted to display the image, the display device comprising:
- a display network interface operable to receive bitmap image data of the image from the network;
  - a display frame buffer operable to store the received bitmap image data; and
- a display refresh unit operable to read the bitmap image data from the display frame buffer and display and refresh the image at a refresh rate.
- 38. The system of Claim 37, wherein the display device further comprises a display network interface port coupled to said display network interface for receiving the bitmap image data from the network.
- 39. The system of Claim 38, wherein the display network interface port is selected from the group consisting of an Ethernet port, an Infiniband port, and a wireless network transceiver.
- 40. The system of Claim 37, wherein the display device further comprises a display decompression unit operable to decompress the bitmap image data into decompressed bitmap image data.
- 41. The system of Claim 40, wherein the display decompression unit is coupled to the display frame buffer.
- 42. The system of Claim 37, wherein the display device further comprises a display decompression unit operable to decompress the bitmap image data into decompressed bitmap image data prior to being stored in the display frame buffer.

- 43. The system of Claim 37, wherein the display device is adapted to display the image via at least one of an element selected from the group consisting of a Cathode Ray Tube (CRT), a Liquid Crystal Display (LCD), a Thin Film Transistor (TFT), a Light Emitting Diode (LED), and an organic polymer.
- 44. The system of Claim 37, the display network interface of the display device adapted to receive the bitmap image data from a remote source device via a plurality of packets.
  - 45. A method for displaying an image, comprising:

receiving, via a network interface of a display device communicatively coupled to a network, bitmap image data of the image, the display device adapted to display the image;

storing the received bitmap image data in a display frame buffer of the display device; and

reading the stored bitmap image data from the display frame buffer by a display refresh unit of the display device and refreshing the display of the image at a refresh rate.

- 46. The method of Claim 45, further comprising decompressing the bitmap image data into decompressed bitmap image data via a display decompression unit of the display device.
- 47. The method of Claim 46, further comprising storing the decompressed bitmap image data in the display frame buffer.
- 48. The method of Claim 46, further comprising storing the decompressed bitmap image data and the bitmap image data in different portions of the display frame buffer.

- 49. The method of Claim 45, further comprising decompressing the bitmap image data into decompressed bitmap image data via a display decompression unit of the display device prior to storing the bitmap image data in the display frame buffer.
- 50. The method of Claim 45, further comprising displaying the image by the display device via at least one of an element selected from the group consisting of a Cathode Ray Tube (CRT), a Liquid Crystal Display (LCD), a Thin Film Transistor (TFT), a Light Emitting Diode (LED), and an organic polymer.
- 51. The method of Claim 45, wherein receiving bitmap image data comprises receiving, via the network interface of the display device, bitmap image data from a remote source device via a plurality of packets.
  - 52. A system for displaying an image, comprising:

means for receiving, via a display device communicatively coupled to a network, bitmap image data of the image, the display device adapted to display the image;

means for storing the received bitmap image data in a display frame buffer of the display device; and

means for reading the stored bitmap image data from the display frame buffer by a display refresh unit of the display device and refresh the display of the image at a refresh rate.

- 53. The system of Claim 52, further comprising means, disposed on the display device, for decompressing the bitmap image data into decompressed bitmap image data.
- 54. The system of Claim 52, further comprising means, disposed on the display device, for decompressing the bitmap image data into decompressed bitmap image data prior to storing the bitmap image data in the display frame buffer.
  - 55. A system for displaying an image, comprising:

a display device communicatively couplable to a network and configured to display the image, the display device comprising a frame buffer and a single-chip display controller, the frame buffer operable to store graphics image data, and wherein the single-chip display controller comprises:

a network interface operable to receive the graphics image data of the image from the network and provide the graphics image data to the frame buffer; and

a display refresh unit operable to read the graphics image data from the frame buffer and display and refresh the image at a refresh rate.

- 56. The system of Claim 55, wherein the single-chip display controller further comprises a decompression unit operable to decompress the received graphics image data.
- 57. The system of Claim 55, wherein the single-chip display controller further comprises a decompression unit operable to decompress the received graphics image data prior to being stored in the frame buffer.
  - 58. A system for displaying an image, comprising:

a display device communicatively couplable to a network and adapted to display the image, the display device comprising:

a display network interface operable to receive graphics image data of the image over the network from a frame buffer of a remote source device;

a display frame buffer operable to store the received graphics image data; and a display refresh unit operable to read the graphics image data from the display frame buffer and display and refresh the image at a refresh rate.

59. The system of Claim 58, wherein the display device further comprises a display decompression unit operable to decompress the graphics image data.

- 60. The system of Claim 58, wherein the display device further comprises a display decompression unit operable to decompress the graphics image data prior to being stored in the display frame buffer.
- 61. The system of Claim 58, wherein the display network interface and the display refresh unit are disposed on a single-chip display controller.

### **EVIDENCE APPENDIX**

None

### **RELATED PROCEEDINGS APPENDIX**

None